

WinSALTS

The Windows Version of the SALTS Program

Information on INMARSAT-A

SALTS CENTRAL

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What Is INMARSAT-A?

INMARSAT-A is a type of satellite communications service that provides analog voice, fax, and data communications at 9.6 kilobits per second (KBPS). In addition, INMARSAT-A terminals have a high-speed data (HSD) option for operation at 64 KBPS, facilitating connection to the commercial ISDN network. INMARSAT-A, first introduced in the late 1970s, remains a cornerstone of the U.S. Navy's communication program. INMARSAT-A terminals can either be maritime (affixed on a ship) or land portable.

How Does the WinSALTS Computer Access the INMARSAT-A System?

On board most U.S. Navy and Military Sealift Command (MSC) ships, the INMARSAT-A system is interfaced with a PABX system. The PABX allows multi-line access into the INMARSAT-A terminal. Without the PABX, only one phone would have access to the INMARSAT system. Using a PABX, a number of phone wires can be run throughout the ship, virtually attaching a number of phones to the INMARSAT terminal.

On Navy and MSC ships, the INMARSAT/PABX wires can usually be identified by their red color. A red wire is usually fed into the Supply Department (i.e. Supply Office or Supply Support Office) for SALTS use. The red INMARSAT wire is terminated in the office space with an ordinary RJ-11 phone jack. The WinSALTS computer is connected to the INMARSAT system by unplugging the modem's RJ-11 phone cable from the ordinary shore-based RJ-11 phone jack, and plugging it into the INMARSAT's phone jack.

For land portable INMARSAT terminals, the WinSALTS computer is connected to the INMARSAT system by plugging the modem's RJ-11 phone cable directly into the INMARSAT's RJ-11 phone jack.

What Configuration Changes Are Necessary in WinSALTS to Connect via INMARSAT-A?

Two possible changes are necessary when using WinSALTS with INMARSAT:

- Modification of the modem BAUD Rate.
- Addition or modification of the INMARSAT phone number.

Modifying the BAUD Rate

Because INMARSAT-A accommodates data transmission speeds up to 9600 BAUD, you may need to adjust your WinSALTS modem BAUD rate from the rate you normally use over inport landlines. In WinSALTS:

- 1.) Select System.
- 2.) Select Modem Settings.
- 3.) Set the BAUD rate to 9600, or lower if necessary.

Addition/Modification of INMARSAT Number

Placing a call over the INMARSAT usually requires a different dialing sequence than when placing a call over commercial or DSN landlines. You may need to add a new modem phone number for the INMARSAT system, or modify the entry already included in WinSALTS. In WinSALTS:

- 1.) Select System.
- 2.) Select SALTS Phone No.
- 3.) Click the Add button (or the Change button to edit an existing entry).
- 4.) In the Description box, enter: **Underway, INMARSAT**
- 5.) In the Phone Number box, enter: **81,1-215-697-9020**
- 6.) Select INMARSAT as the Call Type.
- 7.) Click the Done button.

Important Note #1: The INMARSAT number given in item #5 above is the *most common* shipboard entry. Because some INMARSAT/PABX installations vary on ships, other digits and/or the pound symbol (#) may be required by your system. For instance, sometimes Access Control numbers are assigned to INMARSAT callers and need to be included in the modem dialing string. Check with your Communications personnel or equipment manual for assistance.

Important Note #2: For land portable INMARSAT terminals, the *most common* Phone Number entry is: **001,215-697-9020#**. Check your equipment manual for assistance.

Important Note #3: The 9020 extension in the modem number above connects to a high-speed modem bank. If you have difficulties establishing a connection to this modem bank, try extension 1107 or 1108.

Companded vs. Uncompanded

INMARSAT calls can either be companded or uncompanded. Companded calls boost the antenna's power to optimize voice transmissions. However, this may cause a lot of echo or line noise, thereby adversely affecting data transmissions. Uncompanded calls leave the satellite line alone. This helps to reduce echoing and line noise, making it a better circumstance for data and fax transmissions.

How Do I Set My WinSALTS for Uncompanded Calls?

To set your WinSALTS program for an uncompanded call, you will need to insert "burst codes" into the front of your WinSALTS modem phone number. First, check what type of INMARSAT equipment your ship has, and then insert the proper codes into your modem phone number. Use the chart below. The uncompanded option is also selectable by the INMARSAT terminal operator, so you should check that the "uncompanded" option has been selected prior to making underway SALTS calls. In WinSALTS:

- 1.) Select System.
- 2.) Select SALTS Phone No.
- 3.) Click the Add button (or the Change button to edit an existing entry).
- 4.) In the Description box, enter: Underway, INMARSAT
- 5.) In the Phone Number box, enter: 81,nnnn,001-215-697-9020

Note: Where nnnn is the 2 to 4 character Burst Code for your ship's INMARSAT equipment. Use the table below to identify the proper Burst Code.

- 6.) Click the Done button.

Burst Code Table

Type of INMARSAT	Burst Code
Japan Radio, JRC, JEU 35, JUE 45	*01#
Mobile Telisis, Inc. MTI 9100, 9120, 9700	21#
Magnavox 2400/2020	*9
Eb Nera Saturn 3/3S/T	012 (single port)
	1012 (1 st ID of dual port)
	2012 (2 nd ID of dual port)
Eb Nera Saturn 3S.90	0112

Example: If your ship had a Magnavox 2400 system, the dialing string would be:

81,*9,001-215-697-9020

Important Note #1: The INMARSAT phone number in items #5 and the example above is the *most common* shipboard entry. Because some INMARSAT/PABX installations vary on ships, other digits and/or the pound symbol (#) may be required by your system. For instance, sometimes Access Control numbers are assigned to INMARSAT callers and need to be included in the modem dialing string. Check with your Communications personnel or equipment manual for assistance.

Important Note #2: For land portable INMARSAT terminals, the *most common* Phone Number entry with Burst Code would be: **nnnn,001,215-697-9020#**. Check your equipment manual for assistance.

Important Note #3: The 9020 extension in the modem number above connects to a high-speed modem bank. If you have difficulties establishing a connection to this modem bank, try extension 1107 or 1108.